

**REMARKS/ARGUMENTS**

Claims 1-20 are pending in this Application.

Claims 1, 9, 11, and 16 are currently amended. Applicants submit that support for the claim amendments can be found throughout the specification and the drawings.

Claims 1-20 remain/are now pending in the Application after entry of this Amendment. No new matter has been entered.

In the Office Action, claims 1-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,584,459 to Chang et al. (hereinafter “Chang”).

**Claim Rejections Under 35 U.S.C. § 102(e)**

Applicants respectfully traverse the rejections to claims 1-20 and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(e) based on Chang.

Applicants respectfully note that to anticipate a pending claim, a prior art reference must provide, either expressly or inherently, each and every limitation of the pending claim. (M.P.E.P. § 2131).

The Office Action alleges that Chang teaches or suggests all of the claim limitations of claims 1-20. However, based on the arguments presented below, Applicants respectfully submit that Chang fails to teach or suggest at least one of the claim limitation recited in each of claims 1-20.

**Claim 1**

Amended claim 1 recites a method of searching unstructured data stored in a database. As recited in claim 1, unstructured data is stored in a column of a database table. A user is allowed to identify elements in the unstructured data as indexed elements. In response to the user-identified elements, an intermediate index is then created into the unstructured data from the user-identified elements. The intermediate index recited in claim 1 includes one or more database tables mapping the user-identified elements in the unstructured data as the indexed

elements. A user is then allowed to create queries on the unstructured data using the indexed elements.

Applicants respectfully submit that Chang does not teach or suggest each and every claim limitation recited in claim 1. For example, Chang fails to teach or suggest creating an intermediate index as recited in claim 1, and allowing a user to create queries on unstructured data using indexed elements as recited in claim 1.

#### Intermediate Index

As recited in amended claim 1, in response to user-identified elements, an intermediate index is created into the unstructured data from the user-identified elements. The intermediate index recited in claim 1 includes one or more database tables mapping the user-identified elements in the unstructured data as the indexed elements. Applicants respectfully submit that Chang does not teach or suggest creating an intermediate index as recited in claim 1.

In Chang, the XML extender does key transformation on top of the B+ tree index structures provided by the DB2 database. The key transformation creates the index for structural search. (Chang: Col. 14, lines 24-27). Chang discloses that DB2 supports only the B+ tree data structures, but that other structures, such as a hash table and linked list may be used. (Chang: Col. 15, lines 65-67). Chang further discloses that the structure indexes may be implemented inside of DB2 using its internal B+ tree support and index extensions created to support spatial data. Moreover, Chang teaches that using the existing index support data structures (e.g., the B+ tree data structures) does not require extra columns or extra tables for creating and supporting the indexes. (Chang: Col. 19, lines 57-67).

As previously discussed, after a database is prepared to accept XML documents, Chang discloses that a user may specify characteristics to create indexes directly on attributes of the ADT that extends the tables in the database. (Chang: FIG. 10). FIG. 10 of Chang specifically illustrates data structures, such as a hash table, a B-tree, and a linked list used to directly index into an attribute (e.g., a2) stored in a column of a database table.

Applicants respectfully submit that creating data structures that directly index attributes of a column of a database table in Chang is substantially different from creating an intermediate index as recited in claim 1. Moreover, the intermediate index recited in claim 1 includes one or more database tables configured to index the user-specified elements in the unstructured data (see FIG. 9 of the Application). In contrast, the indexes in Chang are a hash table, B-tree, or linked list data structures used to directly index into an attribute (e.g., a2) of a column of a database table. Directly indexing a column of a table in Chang does not teach or suggest creating an intermediate index into unstructured data as recited in claim 1 that includes one or more database tables configured to map the user-identified elements in the unstructured data as the indexed elements.

Furthermore, Chang teaches away from using extra columns and tables for creating and supporting indexes. (Chang: Col. 19, lines 57-67). Additionally, in response to Applicants' previous arguments that Chang fails to teach or suggest the intermediate index recited in claim 1, the Office Action states that FIG. 4, step 7 of Chang includes creating indexes based on user input. The Examiner concludes that the teachings are synonymous. However, Applicants respectfully submit that Chang's suggestion to avoid extra columns and extra tables for creating and supporting indexes, and Chang's use of internal data structures as discussed above cannot support the Examiner's conclusion that the intermediate index recited in claim 1 is synonymous with the B+ tree data structures using for indexing in Chang.

Accordingly, Applicants respectfully submit that Chang does not teach or suggest the above claim limitation as recited in claim 1. Thus, Applicants respectfully submit that claim 1 is patentable over the cited references.

#### **Claims 2-20**

Applicants respectfully submit that independent claims 9, 11, and 16 are allowable for at least a similar rationale as discussed above for the allowability of claim 1, and others. Applicants submit that dependent claims 2-8, 10, 12-15, and 17-20 that depend directly and/or indirectly from the independent claims 1, 9, 11, and 16 respectively, are also allowable for

at least a similar rationale as discussed above for the allowability of the independent claims. Applicants further submit that the dependent claims recite additional features that make the dependent claims allowable for additional reasons.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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